Attributes of Infrared Heat

Cost Effective—Infrared heat is a naturally occurring form of radiant energy that is more penetrating than conventional heat due to its shorter wavelength. It heats objects and bodies directly, much like the sun, rather than just heating the air. Dollar for dollar, the BioSmart[®] infrared heater can heat a larger area faster, more evenly, and more efficiently than any other heating source.

Comfortable—As much as 80% of the heat produced by an infrared heater is absorbed by the objects & water molecules in the room, so the heat is retained longer instead of quickly dissipating out cracks & poorly insulated areas. Humidity is preserved, creating a softer, moister heat that is easier on the skin and respiratory passages. This is why you feel more comfortable in a room heated with infrared heat.

Energy Efficient—Infrared heat waves distribute heat evenly, floor to ceiling & wall to wall. This can save up to 50% in energy costs. This remarkable attribute of infrared heat has been demonstrated in thermograph videos and evaluation studies.

Health Enhancing—The BioSmart[®] heater emits infrared heat waves in the therapeutic far infrared range. Far Infrared heat provides many of the health benefits of natural sunlight, without the dangerous effects of UV radiation. Customers have reported reduced muscle and joint pain & stiffness, as well as improved respiratory function. Far Infrared heat is also found in a variety of healing modalities, including cancer therapy, with very successful results.



BioSmart Far Infrared vs Standard Coil-Type Radiant Heater



BioSmart Breath Easy Specifications (BIO-1500PA)

Weight Dimensions Power Delayed Start Function cTUVus Safety Approvals Remote Control Dual Speed, High-Output Fan Ultra-Quiet System Warranty

23 lbs 14"×13.25"×16.5" 115 Volt AC Up to 24 hours International UL equivalent Large button surface Ball-bearing laminar-flow 28 dB (Lo), 38 dB (Hi) 3-Year Limited

Heater Specifications

3 probe digital

Up to 24 hours

Automatic High-Limit

750 w (Lo) / 1500 w (Hi)

Comfortable & therapeutic

Life expectancy of 30,000 hrs

±1 Degree

Switch

Electronic Thermostat Accuracy Safety Cut-Off

Delayed Start Function Dual Power Settings Far Infrared Heat 4 Quartz Far Infrared Emitters

Air Purification Specifications

Particulate Filtration Negative Ion Generation VOC Destruction (Volatile Organic Compounds) UV Kill Capacity Noise Level Air Flow Per Minute Testing Procedures/ Validation 7 stage electrostatic filter Ion Generator TiO₂ and UV (Photo-catalytic Oxidation) 4 watt, high intensity 38 db 150 CFM Dylos laser particle counter

Filter Maintenance Requirements

Particulate Filter Cartridge UV/TiO2 System Annual Maintenance Costs

Regular cleaning Annual inspection (UV replacement if necessary) \$19



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BIOSMART Therapentic Infrared Heat



PATENTED HEAT EXCHANGER PROVIDES MAXIMUM COMFORT AND ENERY EFFICIENCY

USES PATENTED MOLECULAR FILTRATION TECHNOLOGY

PASSES CALIFORNIA'S STRICT CLEAN AIR STANDARDS

FILTERS PARTICLES DOWN TO 2.5 MICRONS

REMOVES GASES AND VOLATILE ORGANIC COMPOUNDS

KILLS VIRUSES AND BACTERIA ON CONTACT

BioSmart Advanced Air Purification Technology

Removes air borne pathogens and VOCs by photo-catalysis process, using enhanced TiO2 surface catalyst with UV radiation technology.

Bacteria, mold, virus, and VOC destruction process



- Chemists from the university of Colorado and the National Renewable Energy Laboratory in Colorado conducted an experiment testing the effectiveness of photo-catalytic oxidation against harmful VOCs. They found that destruction of these contaminates was nearly 100%.
- These highly reactive electrons aggressively combine with other elements in the air, such as bacteria and Volatile Organic Compounds (VOCs). VOCs include harmful pollutants such as ammonia, formaldehyde, benzine, and other common contaminates released by household cleaners and building materials.
- In a study commissioned by the U.S. Department of Energy, scientist found that photo-catalytic oxidation converted more than 95% of harmful VOCs to harmless carbon dioxide and water.



BioSmart patented technology offers the most advanced heating and air purification technology available.

Covered	under	one or	more	of the	following	patents

US	8,562,913 / 8,247,742 / 8,427,668
Australia	2007318043
Europe	Pending
Taiwan	M375848 / M381045
China	200920268799.7 / 200930186073.4

Did You Know?

The EPA warns people that indoor air quality in the United States is the number one environmental problem.

TiO₂

Photo-catalytic oxidation (PCO) is achieved when you combine UV light rays with a Titanium Oxide (TiO2) coated filter. This process created hydroxyl radicals and super-oxide ions, which are highly reactive electrons.

These highly reactive electrons aggressively combine with other elements in the air, such as bacteria and Volatile Organic Compounds (VOCs). VOCs include harmful pollutants such as ammonia, formaldehyde, benzine, and other common contaminates released by household cleaners and building materials.

Once bound together, the chemical reaction takes place between the supercharged ion and pollutant, effectively "oxidizing" (burning) the pollutant. This breaks the pollutant down into harmless carbon dioxide and water molecules.

Reticulated Foam

Particulates that become charged by passing through the electrostatic membrane agglomerate together on the surface of the foam where they are captured permanently until the filter is serviced.

Polluted Air Enters

Electrostatic Membrane

Electrostatic air purifiers work with static electricity to charge particles inside the air purifier. As a result, the charged particles stick to the foam of the internal filtration system and are removed from your indoor air. Unlike HEPA air purifiers, electrostatic air purifiers do not use filters.

Did You Know? Children in homes with high mold

levels show persistent cold like symptoms-300% more than average.

Did You Know?

The EPA states that 6 out of 10 homes are sick, meaning they are hazardous to your health as a result of air borne pollutants.

Easy to clean

BioSmart's unique, patented combination of electrostatic layers and reticulated foam suspend particulates between each layer of foam where they are held until the filter is removed and cleaned, normally every 30 days. Cleaning takes about 5 minutes using tap water and your BioSmart filter is good as new again. There are no expensive HEPA filters to replace. You also get a Lifetime replacement guaranteed on all BioSmart electrostatic filters.

Clean, Healthy Air and Therapeutic Infrared Heat Exits

Copper Plate

Copper provides further ionization which enhances the distribution of radiant heat waves as they exit the heater.

UV

UV radiation is used interactively with TIO2 to destroy air borne pathogens and break down complex hydrocarbons (VOCs).

Negative Ionizer

Scientific studies have shown that atmospheres charged with negative ions relieve hay fever and asthma symptoms, seasonal depression, fatigue and headaches. It's also been shown that negatively ionized atmospheres improve performance of voluntary movement, increase work capacity, sharpen mental functioning, and reduce error rates.

Did You Know?

According to the World Health Organization, 40% of all buildings pose a serious health hazard due to indoor air pollution.